REMARKS

Applicant respectfully requests reconsideration of this application in view of the foregoing amendment and following remarks.

Status of the Claims

Claims 24, 26, 30, 31, 35 and 36 are pending in this application, of which claims 24, 30 and 31 are independent. Claims 24, 26, 30, 31 and 35 stand rejected. Claim 35 is objected to, i.e., indicated as allowable if rewritten in independent form. By this amendment, claims 24, 30 and 31 are amended. New claims 37-39 are added. No new matter has been introduced by this amendment.

Rejections under 35 U.S.C. §103

Claims 24, 26, 30, 31 and 35 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,108,036 to Harada et al. ("Harada") in view of U.S. Patent No. 6,266,086 to Okada et al. ("Okada") and further in view of JP 07-107369 A to Kaneda ("Kaneda").

Independent claims 24, 30 and 31 have been amended for further clarification. Amended claim 24 recites as follows:

> 24 (*Currently Amended*): An imaging apparatus having an imaging unit which forms an object image and generates an image by photoelectric conversion, a generator which generates a single image from the image obtained by the imaging unit and a plurality of secondary images each obtained by shifting pixels of the obtained image, and a storage unit which stores the single image obtained by the generator in a storage medium, said apparatus comprising:
>
> a detector, arranged to detect spatial frequency characteristics of a plurality of color components of the image obtained by the imaging unit;
>
> a controller, arranged to designate the data format and control supply of an image to the storage unit in correspondence with the detected spatial frequency characteristics; and
>
> a shift unit, arranged to shift the pixels of the image obtained by the imaging unit thereby generating the plurality of secondary images,
>
> wherein said shift unit changes a shift amount of the pixels in each of the plurality of secondary images in correspondence with a result of comparison between the spatial frequency characteristics of the plurality of color components of the image detected by said detector.

Other independent claims (i.e., claims 30 and 31) have been amended in a similar manner to claim 24 as amended.

Referring to Fig. 22 of the present application as re-produced below, one of the aspects of the present invention generates a plurality of secondary images 1702, 1703, 1704 out of the obtained image 1701 by shifting the pixels of the obtained image 1701 (i.e., an original image).

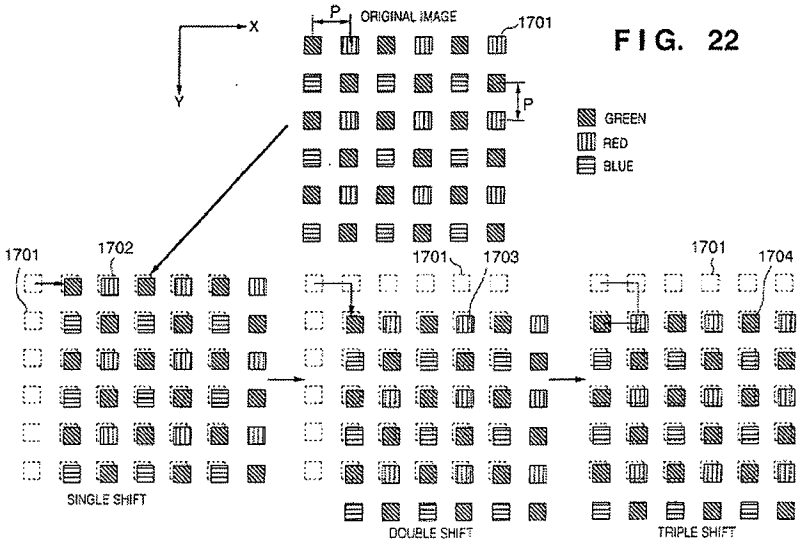

FIG. 22

For example, the first shift image 1702 has been shifted by one pixel pitch P from the original image 1701 in the X-direction, the second shift image 1703 has been shifted by p from the first shift image 1702 in the Y-direction, and the third shift image 1704 has been shifted by -P from the second shift image 1703 in the X-direction. In particular, amended clam 24 specifically recites that the shifting amount of the pixels in the secondary images corresponds to the comparison result between the spatial frequency characteristics of the color components (e.g., R, G, B) of the obtained image detected by the detector. See, e.g., page 55, line 20 through page 58, line 20 of the specification as originally filed.

With the features of the invention as described above, it is possible to select a shift amount of each of the secondary images suitable for an object by detecting a suitable color

component for the object to be given a priority over other color components by, e.g., comparing the spatial frequency characteristics.

Harada discloses an imaging apparatus adapted to pick up both a motion image and a still image. The Office Action indicates that the image shift mechanism 19 as shown in Fig. 1 is an equivalent structure to the shift unit of the present application. A relevant portion of Harada (e.g., col. 27, lines 58-67) discloses that the image shift mechanism shift the optical axis of the original image light emerging from the variable spatial filter 18 that causes a focal position of each monochromatic image light component to shift in the same shifting direction. However, there is nothing in Harada that teaches a shifting unit that shifts the pixels of an initial image to generate a plurality of secondary images based on the comparison result of the spatial frequency characteristics of the color components of the initial image, as specifically required by the amended claims.

Okada is cited as disclosing the detector of the present application but fails to teach the shifting unit of the present invention as discussed above. Applicant notes that Okada's optical shifting units 3, 4 as shown in Figs. 1 and 10 differ from the shifting unit of the present application, i.e., they fail to shift the pixels of the original image based on the comparison result of the spatial frequency characteristics of the color components of the initial image as required by the amended claims discussed above.

Kaneda is cited as disclosing the concept of detecting movement of the camera based on a result of comparison between the spatial frequency. However, as Applicant understand it, Kaneda also fails to show or suggest the inventive aspects of the present application as discussed above.

Accordingly, each of claims 24, 30 and 31 as amended is believed neither anticipated by nor rendered obvious in view of the cited references (i.e., Harada, Okada and Kaneda), either taken alone or in combination, for at least the reasons discussed above.

Reconsideration and withdrawal of the rejections of claims 24, 30 and 31 under 35 U.S.C. §103(a) is respectfully requested.

Applicant has chosen in the interest of expediting prosecution of this patent application to distinguish the cited documents from the pending claims as set forth above. However, these statements should not be regarded in any way as admissions that the cited documents are, in fact, prior art. Also, Applicant has not individually addressed the rejections of the dependent claims (i.e., claims 26 and 35) because Applicant submits that the independent claims from which they respectively depend are in condition for allowance as set forth above. Applicant however reserves the right to address such rejections of the dependent claims should such be necessary.

New claims 37-39 are added to recite the claimed invention in an alternative manner. Specifically, each of claims 37-39 depends from claims 24, 30 and 31 as amended, respectively, is accordingly believed allowable for at least the similar reasons to these amended claims discussed above. Support for the new claims may be found, e.g., at page 58, lines 21-26 of the original specification.

Applicant believes that the application as amended including the new claims is in condition for allowance and such action is respectfully requested.

AUTHORIZATION

No petitions or additional fees are believed due for this amendment and/or any accompanying submissions. However, to the extent that any additional fees and/or petition is required, including a petition for extension of time, Applicant hereby petitions the Commissioner to grant such petition, and hereby authorizes the Commissioner to charge any additional fees, including any fees which may be required for such petition, or credit any overpayment to Deposit Account No. 13-4500 (Order No. 1232-4495US1). A DUPLICATE COPY OF THIS SHEET IS ENCLOSED.

An early and favorable examination on the merits is respectfully requested.

Respectfully submitted,
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Dated: November 18, 2008

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